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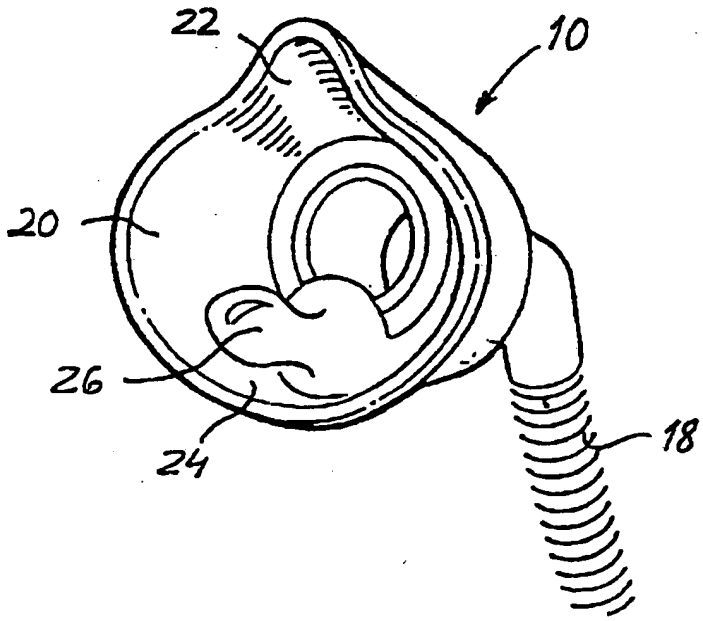
(54) Title: ANAESTHETIC MASK FOR INFANTS



(57) Abstract

The invention relates to an anaesthesia mask for infants. The mask has an elastic wall (20) which is shaped so as to sealingly surround the child's facial region around the nose and mouth. A teat-shaped suction piece (26) is formed unitarily with a section (24) of the wall (20) beneath the mask's through opening for the gas.

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TITLE

ANAESTHETIC MASK FOR INFANTS

The invention relates to an anaesthesia mask for infants, comprising a central body section with a through-opening for connection of an anaesthesia tube to the mask, and a bowl-shaped elastic wall projecting from the body section which is shaped so as sealing surround the facial region of the child around the nose and mouth.

In order to anaesthetize infants, particularly babies, an anaesthesia mask of the above-mentioned type is often used which, during administration of the anaesthetic, is continuously pressed against the child's face by a nurse in order to maintain sealed contact. Such a mask is often seen by the child as a threat due to perceived difficulty in breathing in the mask through the nose. This disturbs the child so that anaesthetizing becomes much more difficult.

An anaesthesia administering device is known from EP-A-0 085 639 which includes a teat-shaped suction piece with which the child can suck a nozzle opening for the anaesthesia gas towards himself, the nozzle being formed on the outside of the teat and positioned in front of the nose. The gas can hereby be partially inhaled by the child, though the majority of the gas flows out to the surrounding air. This known device is intended to achieve a first phase of anaesthetizing, whereafter a normal anaesthesia mask is connected and placed over the face for subsequent anaesthetizing (c.f. page 4, lines 26-32; page 5, line 1 and 2 of the EP publication).

An object of the present invention is to present an anaesthesia mask for infants which the child will happily accept so as to achieve a sealing gradual contact of the outer peripheral edge of the bowl-shaped wall of the mask against the face of the child around the nose and mouth so as to prevent leakage of anaesthesia gas around the mask and to thereby obtain complete anaesthesia with one single pass. In order to achieve this object, the anaesthesia mask according to the invention is characterized in that a teat-shaped suction piece is formed unitarily with a section of the wall beneath the through-opening, which suction piece is intended to be inserted into the child's mouth so as to facilitate a sealing gradual contact of the wall's outer peripheral edge against the face by means of the child sucking on the suction piece.

A suitable embodiment of the anaesthesia mask according to the invention will be described in more detail below with reference to the attached drawings in which Fig. 1 shows a cross-section through the mask according to the invention whilst in use, and Fig. 2 is a perspective view from the rear of the mask.

The anaesthesia mask 10 according to the invention which is made from rubber or another suitable elastic material comprises a central body section 12 with a through-opening 14 for a connection nipple 16 which is intended to be connected to an external anaesthesia gas tube 18 in order to direct a flow of gas towards the nostrils. A bowl-shaped wall 20 projects from the central section 12 and presents an upper region 22 which surrounds the child's nose, and a lower section 24 on which an inwardly projecting teat-shaped suction piece 26 is formed. The suction piece is totally sealed and formed in one piece with the lower section 24 of the mask's wall and is intended to be inserted in the child's mouth.

The wall 20 has an outer peripheral edge with a bead 28 on the side of the mask facing the child. The purpose of the bead 28 is to form a sealing contact of the mask against the child's face.

Before the mask is used, a sugar solution or similar may be applied to the teat-shaped suction piece 26, whereafter the suction piece is inserted in the child's mouth so that the child can happily suck on it so that the peripheral edge of the mask is drawn into sealing contact with the face around the nose and mouth (Fig. 1). Anaesthesia gas can thereafter be administered to anaesthetize the child.

CLAIMS

1. Anaesthesia mask for infants, comprising a central body section (12) with a through-opening (14) for connection of an anaesthesia tube (18) to the mask, and a bowl-shaped elastic wall (20) projecting from the body section (12), which wall is shaped so as to sealing surround the facial region of the child around the nose and mouth, **characterized** in that a teat-shaped suction piece (26) is formed unitarily with a section (24) of the wall (20) beneath the through-opening (14), which suction piece (26) is intended to be inserted in the child's mouth so as to facilitates a sealing gradual contact of the outer peripheral edge (28) of the wall against the face by means of the child sucking on the suction piece.

2. Anaesthesia mask according to claim 1, **characterized** in that the outer peripheral edge of the wall (20) presents an inwardly directed bead (28).

3. Anaesthesia mask according to claim 1 or 2, **characterized** in that the through-opening (14) houses a nipple (16) for connection of the anaesthesia gas tube (18).

4. Anaesthesia mask according to any one of claims 1-3, **characterized** in that the teat-shaped suction piece (26) is completely sealed.

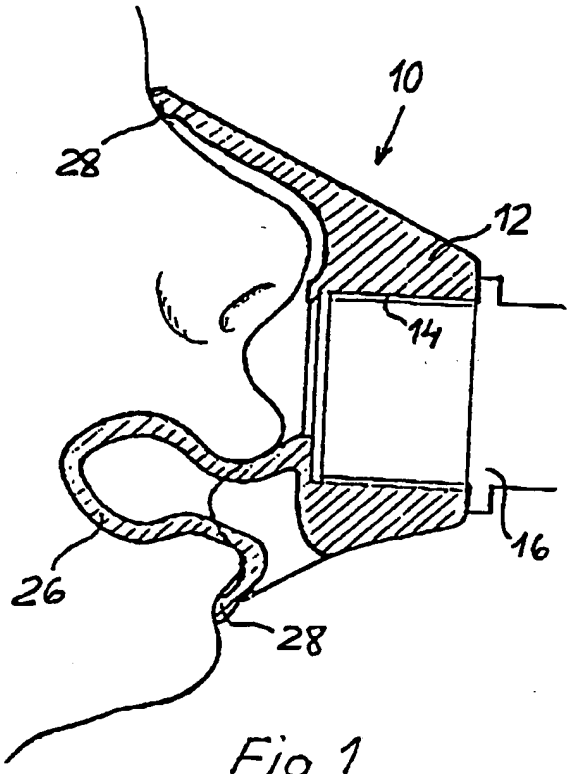

Fig. 1

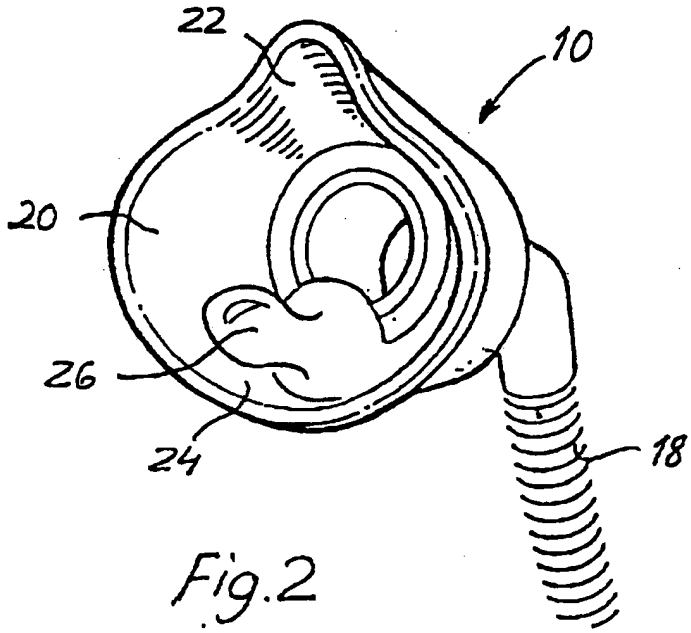

Fig. 2

INTERNATIONAL SEARCH REPORT

International Application No PCT/SE 92/00470

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all)[6]

According to International Patent Classification (IPC) or to both National Classification and IPC

IPC5: A 61 M 16/06, A 62 B 18/02

II. FIELDS SEARCHED

Minimum Documentation Searched[7]

Classification System	Classification Symbols
IPC5	A 61 M; A 62 B

Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in Fields Searched[8]

SE,DK,FI,NO classes as above

III. DOCUMENTS CONSIDERED TO BE RELEVANT[9]

Category *	Citation of Document,[11] with indication, where appropriate, of the relevant passages[12]	Relevant to Claim No.[13]
Y	US, A, 4520809 (DE GREEF ET AL) 4 June 1985, see abstract; figure 3 --	1-4
Y	US, A, 4896666 (HINKLE) 30 January 1990, see column 3, line 66 - column 4, line 7; column 4, line 57 - line 61; figure 2 --	1-4

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* Special categories of cited documents:[10]

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"X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report
23rd October 1992	26 -10- 1992
International Searching Authority	**Signature of Authorized Officer**
SWEDISH PATENT OFFICE	Lena Nilsson

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO.PCT/SE 92/00470

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report.
The members are as contained in the Swedish Patent Office EDP file on 30/09/92
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Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US-A- 4520809	85-06-04	AU-B-	561009	87-04-30
		CA-A-	1186588	85-05-07
		EP-A-B-	0085639	83-08-10
		AU-D-	1003883	83-07-21
US-A- 4896666	90-01-30	CA-A-	1265967	90-02-20